

defining the biologic reactivity and resilience, including the immune competence of an individual. A competent immune network, systemic and mucosal is intrinsic to resilience and homeostasis of the human holobiont as the unit of evolution. In elderly, the immunosenescence could be associated with higher levels of proinflammatory mediators (such as IL-6), frailty and mortality. Pro-inflammatory state in elderly is denoted as inflammaging, characterized with low-grade (sterile) inflammation, as a physiologic response to life-long antigenic stimuli. When under control, inflammaging could be regarded as an efficient defense mechanism, opposed and regulated by anti-inflammatory pathways and molecules. Immunosenescence. The emerging concepts of „individual immunobiography“ and „trained immunity“ speak in favour that the immunological experience during the life would shape the ability of each individual to respond to various stimuli, strongly influencing the elements of innate and adaptive immunity, including macrophages and innate lymphoid cells. Older age is one of the main risk factors for the severe clinical picture and adverse outcome of COVID-19 infection., due to immunosenescence and chronic low-grade inflammation (inflammaging), both characterizing the immune reaction in elderly. The senescent immune system, along with the advanced process of inflammaging is prone to react with uncontrolled activation of innate immune response that leads to cytokine release syndrome, tissue damage and adverse outcome of infection. Further research is aimed to nutritional and pharmacologic (immunomodulatory) interventions to influence the process of bioaging and immunosenescence, and to modulate the reaction of elderly to infection, including the COVID-19.

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PAINFUL AND ITCHY DERMATOSES CARRY THE HIGHEST PSYCHOLOGICAL BURDEN FOR DERMATOVENEREOLOGICAL PATIENTS

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Background: Most dermatovenereological diseases are not life-threatening but nevertheless are highly prevalent disorders. Psychosocial aspects of skin diseases and physical symptoms strongly influence patient's quality of life (QoL) which results in the development of different coping mechanisms in patient's behaviour. Development of psychiatric comorbidity in patients with skin diseases is well known. On the other hand, little is known about psychological comorbidity associated with dermatovenereological diseases. Aims of this study were to investigate QoL and psychological burden among dermatovenereological patients.

Subjects and methods: Two hundred and ninety patients suffering from different dermatological and venereological diseases participated in the study, divided into three study groups: itchy/painful dermatoses, non-itchy/non-painful dermatoses and venereological diseases. Participants completed standardized psychological questionnaires: Dermatology Specific Quality of Life (DSQL), Beck Depression Inventory (BDI) and State and Trait Anxiety Inventory (STAI). Intensity of the disease and localisation of the lesions were also assessed.

Results: Physical aspect of QoL was mostly influenced by itchy/painful dermatoses but psychological aspect and everyday activities and choices were mostly affected by patients with non-itchy/non-painful dermatoses and venereological diseases. 4.1% of participants had serious depressive symptoms, 11.5% had high and very high anxiety symptoms as state and 15.6% as trait. However, participants with severe skin conditions were more depressed, while participants with always and sometimes exposed lesions were more anxious.

Conclusion: It is essential to recognise subgroups of dermatovenereological patients whose treatment approach should be interdisciplinary. Further studies are needed to detect psychosocial needs of patients with venereological diseases.

Key words: quality of life - anxiety - depression - skin diseases - venereological diseases

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EPIGENETIC, RESILIENCE AND COMORBIDITY: DOES FOUR-DIMENSIONAL ULTRASOUND (4-D US) HELPS IN ANSWERING THE QUESTION DO PSYCHIATRIC DISEASES ORIGINATE IN FETAL LIFE

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The mankind from its beginnings is interested what the future brings, so predicting the future through the history was one of the most mysterious and intriguing questions. The medical professionals always dreamed to predict the future of the individual patient instead of being only historians speaking about the course of disease of their patients, or statisticians making the conclusions based on the population based statistical data of health indicators.

Development of sophisticated and precise scientific methods and their application in everyday clinical practice with the aim to timely predict the development of severe medical conditions affecting adversely the quality of life is now a reality, while only several decades ago it was considered as unrealistic assignment. There is a possibility of "Fetal Origin of Adult Disease", among which are mental and neurodevelopmental disorders. Epigenetic changes may produce the damage of the DNA which may be transgenerational. Prenatal noxious stimuli can modulate neurodevelopment which may be impaired due to the interaction of genetic, epigenetic and environmental factors influencing proliferation, migration and establishment of neuronal circuits of neuronal progenitor cells, resulting in damaged cognitive and intellectual function, and increased risk of neurodevelopmental and psychiatric disorders later in life.

The situation with the prediction of fetal outcome or prediction of postnatal health based on prenatal assessment is much more complicated than postnatal, because of at least two reasons: intrauterine environment is unpredictable and the role of the placenta is still poorly understood. Ultrasound, genetic testing of amniotic fluid, preimplantation genetic testing, detection of fetal cells in maternal blood, or even testing of fetal blood after cordocentesis, enabled the diagnosis of many congenital conditions based on the whole exome sequencing, while the problem with fetal origin of mental health problems is more complicated and demanding.

The aim of the paper is to present the risk factors in pregnancy for development of mental health problems later in life, role of four-dimensional ultrasound (4D US) in the assessment of fetal behavior and cognitive functions and to speculate about fetal and neonatal resilience to overcome possible threats affecting mental health.

Key words: prenatal psychiatry - comorbidity - resilience - epigenetics

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ENDOMETRIOSIS, PAIN AND MENTAL HEALTH

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Background: Endometriosis is a chronic and progressive disease which can significantly affect a woman's personal, as well as intimate and professional aspects of life. The aim of this study was to assess health-related quality of life and mental health status in patients with endometriosis, investigating also their relationship with endometriosis-related comorbid symptoms and conditions, such as pain and infertility.

Subjects and methods: An observational cross-sectional study involved 79 women with endometriosis. All patients filled the Endometriosis Health Profile (EHP-5), the Depression Anxiety Stress Scales (DASS-21)